

January 17, 2002

Mr. Michael Kansler
Senior Vice President and
Chief Operating Officer
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - ISSUANCE OF
AMENDMENT RE: TECHNICAL SPECIFICATIONS SURVEILLANCE
REQUIREMENT REGARDING STATION BATTERY 31 TERMINAL VOLTAGE
(TAC NO. MB3356)

Dear Mr. Kansler:

The Commission has issued the enclosed Amendment No. 209 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit No. 3. The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated October 23, 2001, as supplemented by letter dated December 20, 2001.

The amendment revises TS Surveillance Requirement (SR) 3.8.4.1 to support replacement of the station batteries. The amendment will allow for separate required terminal voltage values for the new 31 and 32 station batteries.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

/RA/

Patrick D. Milano, Sr. Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosures: 1. Amendment No. 209 to DPR-64
2. Safety Evaluation

cc w/encls: See next page

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*SE provided on 1/3/02; no major changes were made.
Accession Number: ML020090661

OFFICE	PDI-1\PM	PDI-1\LA	OGC	PDI-1\ASC	EEIB:DE*
NAME	PMilano	SLittle	DCummings	JMunday	CHolden
DATE	1/15/02	1/15/02	1/15/02	1/16/02	1/3/02

Official Record Copy

DATED: January 17, 2002

AMENDMENT NO. 209 TO FACILITY OPERATING LICENSE NO. DPR-64 INDIAN POINT
UNIT 3

PUBLIC
PDI R/F
Acting Section Chief
SLittle
PMilano
OGC
GHill (2)
WBeckner
SSaba
ACRS
BPlatchek, RI

cc: Plant Service list

Indian Point Nuclear Generating Unit No. 3

cc:

Mr. Jerry Yelverton
Chief Executive Officer
Entergy Operations
1340 Echelon Parkway
Jackson, MS 39213

Mr. Robert J. Barrett
Vice President - Operations
Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Unit 3
295 Broadway, Suite 3
P. O. Box 308
Buchanan, NY 10511-0308

Mr. Dan Pace
Vice President Engineering
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. James Knubel
Vice President Operations Support
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. Joseph DeRoy
General Manager Operations
Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Unit 3
295 Broadway, Suite 3
P. O. Box 308
Buchanan, NY 10511-0308

Mr. John Kelly
Director - Licensing
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Ms. Charlene Fiason
Licensing
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. Harry P. Salmon, Jr.
Director of Oversight
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Mr. James Comiotes
Director, Nuclear Safety Assurance
Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Unit 3
295 Broadway, Suite 3
P.O. Box 308
Buchanan, NY 10511-0308

Mr. John Donnelly
Licensing Manager
Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Unit 3
295 Broadway, Suite 3
P.O. Box 308
Buchanan, NY 10511-0308

Mr. John McCann
Manager, Licensing and Regulatory Affairs
Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Unit 2
295 Broadway, Suite 1
P. O. Box 249
Buchanan, NY 10511-0249

Resident Inspector's Office
U.S. Nuclear Regulatory Commission
295 Broadway, Suite 3
P.O. Box 337
Buchanan, NY 10511-0337

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. John M. Fulton
Assistant General Counsel
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

Indian Point Nuclear Generating Unit No. 3

cc:

Ms. Stacey Lousteau
Treasury Department
Entergy Services, Inc.
639 Loyola Avenue
Mail Stop: L-ENT-15E
New Orleans, LA 70113

Mr. William M. Flynn, President
New York State Energy, Research, and
Development Authority
Corporate Plaza West
286 Washington Avenue Extension
Albany, NY 12203-6399

Mr. J. Spath, Program Director
New York State Energy, Research, and
Development Authority
Corporate Plaza West
286 Washington Avenue Extension
Albany, NY 12203-6399

Mr. Paul Eddy
Electric Division
New York State Department
of Public Service
3 Empire State Plaza, 10th Floor
Albany, NY 12223

Mr. Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, NY 10271

Mayor, Village of Buchanan
236 Tate Avenue
Buchanan, NY 10511

Mr. Ray Albanese
Executive Chair
Four County Nuclear Safety Committee
Westchester County Fire Training Center
4 Dana Road
Valhalla, NY 10592

Mr. Ronald Schwartz
SRC Consultant
64 Walnut Drive
Spring Lake Heights, NJ 07762

Mr. Ronald J. Toole
SRC Consultant
Toole Insight
605 West Horner Street
Ebensburg, PA 15931

Mr. Charles W. Hehl
SRC Consultant
Charles Hehl, Inc.
1486 Matthew Lane
Pottstown, PA 19465

Mr. Ronald Schwartz
SRC Consultant
64 Walnut Drive
Spring Lake Heights, NJ 07762

Mr. Ronald J. Toole
SRC Consultant
Toole Insight
605 West Horner Street
Ebensburg, PA 15931

Mr. Charles W. Hehl
SRC Consultant
Charles Hehl, Inc.
1486 Matthew Lane
Pottstown, PA 19465

Alex Matthiessen
Executive Director
Riverkeeper, Inc.
25 Wing & Wing
Garrison, NY 10524

ENTERGY NUCLEAR OPERATIONS, INC.

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 209
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Nuclear Operations, Inc. (the licensee) dated October 23, 2001, as supplemented December 20, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-64 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 209, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Joel Munday, Acting Chief, Section I
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 17, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 209

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page

3.8.4-2

Insert Page

3.8.4-2

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 209 TO FACILITY OPERATING LICENSE NO. DPR-64
ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 3
DOCKET NO. 50-286

1.0 INTRODUCTION

By letter dated October 23, 2001, as supplemented by letter dated December 20, 2001, Entergy Nuclear Operations, Inc. (the licensee) submitted a request for changes to the Indian Point Nuclear Generating Unit No. 3 (IP3) Technical Specifications (TSs). The requested changes would revise TS Surveillance Requirement (SR) 3.8.4.1 to support replacement of the station batteries. The changes would allow for separate required terminal voltage values for the new 31 and 32 station batteries. The December 20, 2001, letter provided clarifying information that did not change the initial proposed no significant hazards consideration determination.

2.0 BACKGROUND

IP3's lead acid station batteries 31 and 32 are required to carry expected shutdown loads following a plant trip and a loss of all AC power. They are sized to carry these loads for 2 hours without battery terminal voltage falling below its minimum required voltage. The 31 and 32 station batteries are scheduled for replacement no later than May 31, 2002. The licensee proposes changing the existing station battery 31, which has 58 cells, with a 59-cell battery, while the new 32-station battery will remain a 58-cell battery. The change from a 58-cell battery to a 59-cell battery causes the 31-station battery to have a new terminal minimum voltage on float charge, thus necessitating a change to the current SRs.

3.0 EVALUATION

Currently, SR 3.8.4.1 requires verification that the battery terminal voltage is greater than 123.5 V for both batteries 31 and 32 on float charge every 31 days. However, for the replacement, the licensee proposed the following modification to SR 3.8.4.1 to reflect the new battery configurations:

Verify battery terminal voltage on float charge is within the following limits:

- (1) Greater or equal to 125.7 V for battery 31;
 - (2) Greater or equal to 123.5 V for battery 32
- with a frequency of 31 days.

The minimum float voltage for battery 31 will be 59 cells x 2.13 volt per cell = 125.7 V, and the minimum float voltage for battery 32 will be 58 cells x 2.13 volt per cell = 123.5 V. Therefore,

the new battery 32 terminal voltage requirement will not change from the previous requirement (123.5 V minimum), but the new battery 31 terminal voltage requirement will increase.

The new batteries were sized per the Institute of Electrical and Electronics Engineers (IEEE) 485-1997 "Recommended Practice for Sizing Lead-Acid Batteries for Stationary Applications." A temperature correction factor based on 60 degrees F (with a 1.11 multiplier), an aging factor of 80% (with a multiplier of 1.25), and a design margin multiplier of 1.0 were used. The results of the sizing analyses yielded the required number of positive plates necessary to meet the needed capacity. This sizing criteria is acceptable, since it ensures that the required battery capacity will be available at the end of its expected life.

When this sizing approach was applied to the replacement battery 31, using only 58 cells, the ratio of positive plates selected to positive plates required resulted in a built-in design basis margin of 1.04. To improve this margin for battery 31, the licensee decided to add a 59th battery cell. Increasing the number of cells in the battery allows for a lower voltage per cell at the end of the required discharge period. This lower voltage per cell permits utilization of more amps per positive plate. As a result of the additional cell and the associated lowering of the end of discharge voltage per cell, the ratio of selected number of positive plates to the required number of positive plates increased from 1.04 to 1.20. The 1.20 value equates to a built in 20% Direct Current design basis margin. Because of this margin, the 59-cell configuration of battery 31 will meet the design loading requirements. In comparison, the original design basis margin for the existing batteries is 1.16. The greater design basis margin indicates that the new battery 31 configuration will be capable of meeting the design loading requirements, even though the replacement cell capacities are rated at 2400 Amp-Hours, which is lower than the original 2660 Amp-Hours of the current batteries.

The licensee's evaluation shows that the new station battery 31 will have an adequate design margin, and the licensee states that the new station battery 32 will also have an adequate design margin. Because of the adequate margin associated with the proposed battery 31 and 32 configurations, we find that the proposed changes (incorporating the proper minimum allowable battery terminal voltage during float charge requirements) to TS SR 3.8.4.1 are acceptable.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (66 FR 59503). Accordingly, the amendment meets the

eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: S. Saba

Date: January 17, 2002